

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference		of Transmittal of International Search Report 220) as well as, where applicable, item 5 below.
P697PC00 International application No.	International filing date (day/month/year)	(Earliest) Priority Date (day/month/year)
memateria application vo.	1	
PCT/DK 03/00901	18/12/2003	20/12/2002
Applicant		
ENKAM PHARMACEUTICALS A/S		
This International Search Report has been according to Article 18. A copy is being tra	n prepared by this International Searching Aut ansmitted to the International Bureau.	nority and is transmitted to the applicant
This International Search Report consists	of a total of 9 sheets	
	a copy of each prior art document cited in this	report.
		•
1. Basis of the report		
 With regard to the language, the language in which it was filed, unl 	international search was carried out on the bar ess otherwise indicated under this item.	sis of the international application in the
Authority (Rule 23.1(b)).	as carried out on the basis of a translation of t	
was carried out on the basis of the	d/or amino acid sequence disclosed in the in e sequence listing: nal application in written form.	ternational application, the international search
	rnational application in computer readable for	n.
H	this Authority in written form.	···
<u></u>	this Authority in computer readble form.	
<u></u>	sequently furnished written sequence listing d	oes not go beyond the disclosure in the
		identical to the written sequence listing has been
	1	
	nd unsearchable (See Box I).	
3. X Unity of invention is lack	king (see Box II).	··
4 NATION OF THE STATE OF THE ST		
 With regard to the title, the text is approved as sul 	meitted by the applicant	
	ned by this Authority to read as follows:	·
the text has been establish	led by this Authority to read as follows.	
5. With regard to the abstract,	and the state of the same linear	
X the text is approved as sultended the text has been establish within one month from the	omitted by the applicant. ned, according to Rule 38.2(b), by this Authorit date of mailing of this international search rep	y as it appears in Box III. The applicant may, ort, submit comments to this Authority.
6. The figure of the drawings to be public	shed with the abstract is Figure No.	
as suggested by the applic		X None of the figures.
because the applicant faile	· · · · · · · · · · · · · · · · · · ·	[22] Trone of the figures.
<u> </u>	characterizes the invention.	
because this ligure better (onaracienzes the invention.	

Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)
This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:
1. X Claims Nos.: 1-24 because they relate to subject matter not required to be searched by this Authority, namely:
see FURTHER INFORMATION sheet PCT/ISA/210
2. X Claims Nos.: 1-3, 14-25, 29-44 and 54 because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
see FURTHER INFORMATION sheet PCT/ISA/210
3. Claims Nos.: because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).
Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)
This International Searching Authority found multiple inventions in this international application, as follows:
see additional sheet
As a result of the prior review under R. 40.2(e) PCT, no additional fees are to be refunded.
1. As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is
restricted to the invention first mentioned in the claims; it is covered by claims Nos.:
Remark on Protest X The additional search fees were accompanied by the applicant's protest.
No protest accompanied the payment of additional search fees.
,

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

Invention 1: claims 1-44 and 48-54 (all partly)

directed to a method of modulating the interaction between a fibroblast growth factor receptor and a protein having a binding site comprising SEQ ID NO:1 (NCAM Fn III, FGFR binding motif) and a method of finding compounds which interact with FGFR and a polypeptide comprising the sequence SEQ ID NO: 1.

Invention 2: 1-54 (all partly)

directed to a method of modulating the interaction between a fibroblast growth factor receptor and a protein having a binding site comprising SEQ ID NO2 (Interleukin-6 receptor beta chain, FGFR binding motif) and a method of finding compounds which interact with FGFR and a polypeptide comprising the sequence SEQ ID NO: 2.

Inventions 3-146: claims 1-54, all partially and as far as applicable.

Subject-matter essentially as defined above for invention 2, but limited to the respective SEQ.ID s 3-146, whereby invention 3 relates to SEQ ID NO:2, invention 3 to SEQ ID NO:3, etc and invention 146 relates to SEQ ID NO:146.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.1

Claims Nos.: 1-24

Although claims 1-24 are directed to a method of treatment of the human/animal body, to the extend that they pertain to in vivo use, a search has been carried out, based an the alleged effects of the compound for the parts of the claims which belong to invention 1 and which appear to be clear, supported and disclosed.

Continuation of Box I.2

Claims Nos.: 1-3, 14-25, 29-44 and 54

Present claims 1-3, 14-25, 29-44 and 54 relate to methods using a compound defined by reference to a desirable characteristic or property, namely using a compound being a functional cell-surface receptor, or using a compound comprising at least two immunoglobulin (Ig)-like domains and/or at least two fibronectin type 3 (F3) domains or at least one Ig-like and one F3 domain. Claim 22 refer to a method using a compound being a functional cell-surface receptor and another protein being characterized by having a binding site consisting of one or more "strand-loop-strand" structural motifs. Claims 1, 45 and claims dependent of these claims lack clarity because of the expression "fragments, variants or homologues therefof. The claims cover all compounds having this characteristic or property, whereas the application provides support within the meaning of Article 6 PCT and or disclosure within the meaning of Article 5 PCT for only a very limited number of such compounds. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Independent of the above reasoning, the claims also lack clarity (Article 6 PCT). An attempt is made to define the compound reference to a result to be achieved. Again, this lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible.

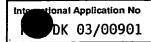
Consequently, the search has been carried out for those parts of the claims which appear to be clear, supported and disclosed, namely those parts relating to the method using fibroblast growth factor receptors and a polypeptide having a FGFR binding site comprising SEQ ID NO 1 have been searched.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following

International Application No. PCT/ DK 03/00901

FURTHER INFORMATION CONTINUED FROM	PCT/ISA/	210
		710

receipt of the search report or during any Chapter II procedure.



A. CLASSIFICATION OF SUBJECT MATTER IPC 7 G01N33/566 C07K7/00

//A61K38/00,C07K14/71

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

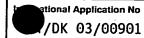
GO1N CO7K A61K IPC 7

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

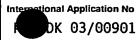
Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, CHEM ABS Data, BIOSIS, SEQUENCE SEARCH

Category °	Citation of document, with indication, where appropriate, of the re-	levant passages	Relevant to claim No
	Olization of document, with incloded, whose appropriates of the contract of		
, X	WO 03 016351 A (SKLADCHIKOVA GALINA ;BOCK ELISABETH (DK); BEREZIN VLADIMIR (DK); E) 27 February 2003 (2003-02-27) See SEQ ID NO:1		1-44, 48-54
	WO 97 38708 A (GEN HOSPITAL CORPHEEKYUNG (US); WANG YUYING (US); 23 October 1997 (1997-10-23) page 4, line 21 -page 5, line 29	GOETINCK)	1-44, 48-54
		-/	
			·
X Furth	er documents are listed in the continuation of box C.	X Patent family members are listed	in annex.
Special cate	egories of cited documents : nt defining the general state of the art which is not	"T" later document published after the into or priority date and not in conflict with cited to understand the principle or the	the application but
earlier de filing da documer which is	ered to be of particular relevance ocument but published on or after the international ate nt which may throw doubts on priority claim(s) or s cited to establish the publication date of another or other special reason (as specified)	"X" document of particular relevance; the cannot be considered novel or cannot involve an inventive step when the do "Y" document of particular relevance; the cannot be considered to involve an in	t be considered to ocument is taken alone claimed invention
O" docume other m	nt referring to an oral disclosure, use, exhibition or leans nt published prior to the international filing date but	document is combined with one or m ments, such combination being obvious in the art.	ore other such docu- ous to a person skilled
later tha	an the priority date claimed	"&" document member of the same patent Date of mailing of the international sea	
•	L June 2004	2 1 12 20	
ame and m	ailing address of the ISA European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Authorized officer YVONNE SIÖSTEEN	/ ELY



		/DK 03/00901
C.(Continua Category °	ation) DOCUMENTS CONSIDERED TO BE RELEVANT Citation of document, with indication, where appropriate, of the relevant passages	Delegant to status Ma
Category 5	Common of Occument, with indication, where appropriate, of the relevant passages	Relevant to claim No.
x	GALINA SKLADCHIKOVA ET AL: "Extracellular adenosine triphosphate affects neural cell adhesion molecule (NCAM-mediated cell adhesion and neurite outgrowth" JOURNAL OF NEUROSCIENCE RESEARCH, vol. 57, 1999, pages 207-218, XP002284206 page 215, right column, line 1 - line 40 and especially line 17 (AENQQGUS), abstract	1-44, 48-54
A	WO 91 00916 A (UNIV CALIFORNIA) 24 January 1991 (1991-01-24) page 5, line 16 - line 25 page 25, line 9	1-44, 48-54
	WO 01 96364 A (IMP COLLEGE INNOVATIONS; KING S COLLEGE LONDON (GB); SAFFELL JANE) 20 December 2001 (2001-12-20) the whole document	1-44, 48-54
	US 6 255 454 B1 (BARR PHILIP J ET AL) 3 July 2001 (2001-07-03) column 3, line 8 - line 30	1-44, 48-54
	LARS C. B. RONN ET AL: "Neurite outgrowth induced by a synthetic peptide ligand of neural cell adhesion molecule requires fibroblast growth factor receptor activation" JOURNAL OF NEUROCHEMISTRY, vol. 75, 2000, pages 665-671, XP002284207 the whole document	1-44, 48-54
	PHILIPP NIETHAMMER ET AL: "Cosignaling of NCAM via lipid rafts and the FGF receptor is required for neuritogenesis" THE JOURNAL OF CELL BIOLOGY, vol. 157, no. 3, 29 April 2002 (2002-04-29), pages 521-532, XP002284208 ISSN: 0021-9525 the whole document	1-44, 48-54
	WO 00 11204 A (LANAHAN ANTHONY A ;BENEKEN JUTTA (US); TU JIAN CHENG (US); WORLEY) 2 March 2000 (2000-03-02) the whole document	1-44, 48-54
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C.(Continua Category °	citation of document, with indication, where appropriate, of the relevant passages		Relevant to claim No.	
A	FERDYNAND J KOS ET AL: "Costimulation of T cell receptor-triggered IL-2 production by Jurkat T cells via fibroblast growth factor receptor 1 upon its engegament by CD56" IMMUNOLOGY AND CELL BIOLOGY, vol. 80, 2002, pages 364-369, XP002284209 the whole document	1-44, 48-54		
A	DATABASE EBI [Online] 1 November 1996 (1996-11-01) retrieved from EMBL Database accession no. Q61945 XP002297229 93% identity in 14aa/49aa with SEQ ID NO 9 & SANTONI, M.J. ET AL: "Differential exon usage involving an unusual slicing mechanism generates at NCAM cDNA in mous brain" EMBO J., vol. 8, 1989, pages 385-392,	•	1-44, 48-54	
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Information on patent family members

International Application No

Patent docume cited in search re		Publication date		Patent family member(s)	Publication date
WO 0301635	51 A	27-02-2003	CA WO EP	2457164 A1 03016351 A2 1434798 A2	27-02-2003 27-02-2003 07-07-2004
WO 9738708	3 A	23-10-1997	EP JP WO	0991422 A1 2001519765 T 9738708 A1	12-04-2000 23-10-2001 23-10-1997
WO 9100916	A	24-01-1991	AT AU CA DE DE DE DE HJP ROG US US US US	179862 T 638734 B2 6077990 A 2063431 A1 69033109 D1 69033109 T2 481000 T3 0481000 A1 2133271 T3 61052 A2 4506604 T 235266 B1 920060 A 72657 A1 9100916 A2 5707632 A 6355440 B1 6350593 B1 6384191 B1	15-05-1999 08-07-1993 06-02-1991 07-01-1991 17-06-1999 18-11-1999 22-04-1992 16-09-1999 30-11-1992 19-11-1992 15-12-1999 02-03-1992 23-05-2000 24-01-1991 13-01-1998 12-03-2002 26-02-2002 07-05-2002
WO 0196364	Α	20-12-2001	EP WO US	1294744 A2 0196364 A2 2004102370 A1	26-03-2003 20-12-2001 27-05-2004
US 6255454	B1	03-07-2001	US	5229501 A	20-07-1993
WO 0011204	A	02-03-2000	AU AU EP JP WO US US	772105 B2 5779899 A 1105734 A2 2002523056 T 0011204 A2 2003170807 A1 6720175 B1	08-04-2004 14-03-2000 13-06-2001 30-07-2002 02-03-2000 11-09-2003 13-04-2004



Box No. VIII (iv) DECLAI

REDEZINI Madimin

N: INVENTORSHIP (only for the purposes of the designation of the United States of America)

The declaration must conform to the following standardized wording provided for in Section 214; see Notes to Boxes Nos. VIII, VIII (i) to (v) (in general) and the specific Notes to Box No.VIII (iv). If this Box is not used, this sheet should not be included in the request.

Declaration of inventorship (Rules 4.17(iv) and 51bis.1(a)(iv)) for the purposes of the designation of the United States of America:

I hereby declare that I believe I am the original, first and sole (if only one inventor is listed below) or joint (if more than one inventor is listed below) inventor of the subject matter which is claimed and for which a patent is sought.

This declaration is directed to the international application of which it forms a part (if filing declaration with application).

This declaration is directed to international application No. PCT/ DK03/00901 (if furnishing declaration pursuant to Rule 26ter).

I hereby declare that my residence, mailing address, and citizenship are as stated next to my name.

I hereby state that I have reviewed and understand the contents of the above-identified international application, including the claims of said application. I have identified in the request of said application, in compliance with PCT Rule 4.10, any claim to foreign priority, and I have identified below, under the heading "Prior Applications," by application number, country or Member of the World Trade Organization, day, month and year of filing, any application for a patent or inventor's certificate filed in a country other than the United States of America, including any PCT international application designating at least one country other than the United States of America, having a filing date before that of the application on which foreign priority is claimed.

Prior Applications: Danish application No.: P.A. 2002 0.1982, filed 20. December 2002 and danish application No.: PA 2003 00330, filed 3 March 2003.

I hereby acknowledge the duty to disclose information that is known by me to be material to patentability as defined by 37 C.F.R. § 1.56, including for continuation-in-part applications, material information which became available between the filing date of the prior application and the PCT international filing date of the continuation-in-part application.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

Name: Principal victimi	
Residence: Copenhagen, Denmark	
(city and either US state, if applicable, or country)	•••••••••••••••••••••••••••••••••••••••
Mailing Address: . Nørrebrogade 223, 1,th., 2200 Copenh	agen N
3	
Citizenship: Ukrainian	
Inventor's Signature: Very 15e 15-17 (if not contained in the request, or if declaration is corrected or added under Rule 26ter after the filing of the international application. The signature must be that of the inventor, not that of the agent)	Date: 16:01.26.5 (of signature which is not contained in the request, or of the declaration that is corrected or added under Rule 26ter after the filing of the international application)
Name: Charlottenlund, Denmark (city and either US state, if applicable, or country)	
Residence: Charlottenlund, Denmark	***************************************
(city and either US state, if applicable, or country)	
Mailing Address: Tonysvej 20, 2920 Charlottenlund	
Citizenship: Danish	
Inventor's Signature: Us Asil Bod	Il James Dry 4
(if not contained in the request, or if declaration is corrected or	(of signature which is not contained in the request, or of the
added under Rule 26ter after the filing of the international	declaration that is corrected or added under Rule 26ter after the
application. The signature must be that of the inventor, not that of the agent)	filing of the international application)

Continuation of Box No. VIII (1988) DECLARATION

If the space is insufficient in any of Boxes Nos. VIII (i) to (v) to furnish all the information, including in the case where more than two inventors are to be named in Box No. VIII (iv), in such case, write "Continuation of Box No. VIII ..." (indicate the item number of the Box) and furnish the information in the same manner as required for the purposes of the Box in which the space was insufficient. If additional space is needed in respect of two or more declarations, a separate continuation box must be used for each such declaration. If this Box is not used, this sheet should not be included in the request.

Continuation of Box No. VIII (iv)

Name: ALBRECHTSEN, Morten

Residence: Charlottenlund, Copenhagen

Mailing addresse: Høstvej 7, 2920 Charlottenlund

Citizenship: Danish

Inventor's signature:....

16/1-2004

Date:..